

Exhibit M

(Part 1 of 2)



US005080367A

United States Patent [19]

Lynch et al.

[11] **Patent Number:** 5,080,367[45] **Date of Patent:** Jan. 14, 1992[54] **GOLF BALL**[75] **Inventors:** Francis deS. Lynch, Mattapoisett; John W. Jepson, Marion; Robert A. Brown, Mattapoisett, all of Mass.[73] **Assignee:** Acushnet Company, New Bedford, Mass.[*] **Notice:** The portion of the term of this patent subsequent to Jun. 26, 2007.[21] **Appl. No.:** 543,968[22] **Filed:** Jun. 26, 1990**Related U.S. Application Data**

[63] Continuation of Ser. No. 213,056, Dec. 4, 1980, Pat. No. 4,936,587, which is a continuation of Ser. No. 91,087, Nov. 5, 1979, abandoned, which is a continuation of Ser. No. 920,396, Jun. 29, 1978, abandoned, which is a continuation of Ser. No. 816,882, Jul. 18, 1977, abandoned, which is a continuation of Ser. No. 716,100, Aug. 20, 1976, abandoned, which is a continuation of Ser. No. 363,353, May 24, 1973, abandoned, which is a continuation-in-part of Ser. No. 236,318, Mar. 20, 1972, abandoned.

[51] **Int. Cl.:** A63B 37/14[52] **U.S. Cl.:** 273/232; 273/218[58] **Field of Search:** 273/232[56] **References Cited****U.S. PATENT DOCUMENTS**

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Primary Examiner—George J. Marlo

Attorney, Agent, or Firm—Lucas & Just

[57]

ABSTRACT

A finished, painted golf ball is disclosed. Dimples on the golf ball are interrelated by dimple number, dimple diameter and dimple depth and are arranged on the surface of the golf ball in a manner which enables the golf ball to travel further. At least about 80% of the distances between the closest points of the edges of adjacent dimples are less than about 0.065 inches and at least about 55% of the distances between the closest points of the edges of adjacent dimples are greater than about 0.001 inches.

Dimple number, dimple diameter and dimple depth are also interrelated in a specific manner according to the formula:

$$S = \left[\frac{831.5(d-x) - 55.56(D-y)}{a} \right]^2 + \left[\frac{83.15(D-y) + 555.6(d-x)}{b} \right]^2$$

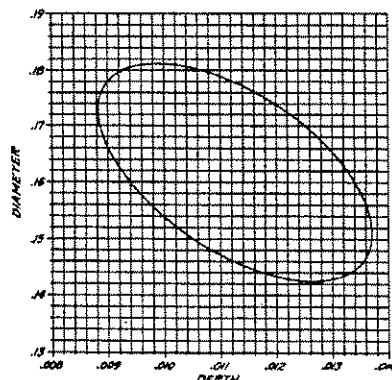
wherein:

d=average depth of all dimples in inches

D=average diameter of all dimples in inches

S=computed unknown (1.0 or less for present invention)

x, y, a and b are dependent on the number of dimples.

25 Claims, 13 Drawing Sheets**3/5 DIMPLES (FORMULA 1)**

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FIG. 1

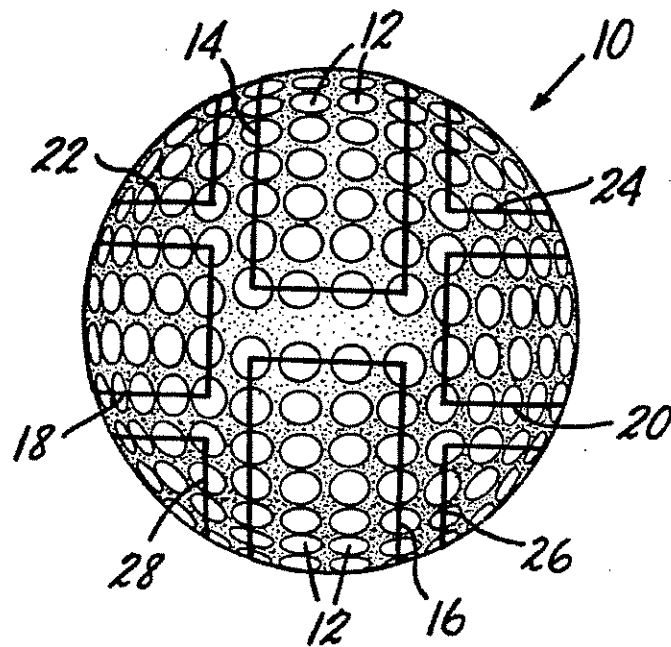
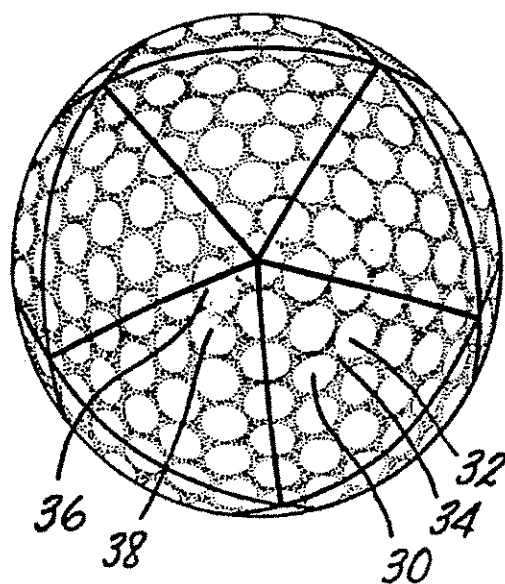


FIG. 2



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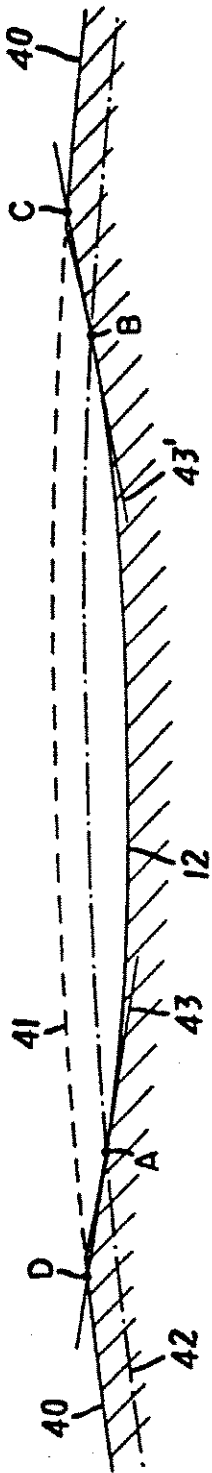


FIG. 3

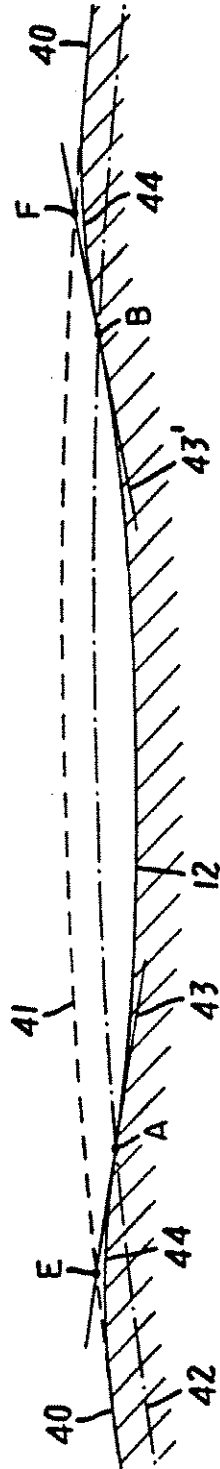


FIG. 4

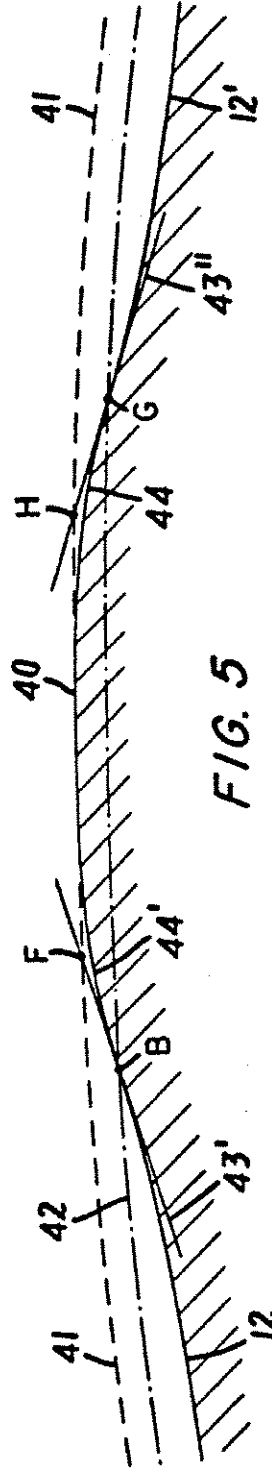


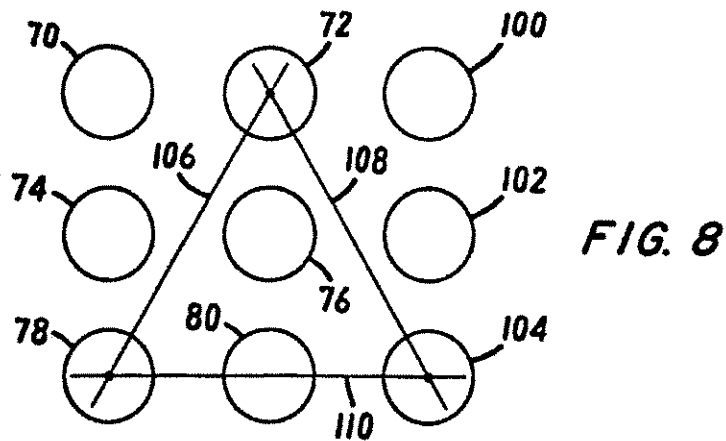
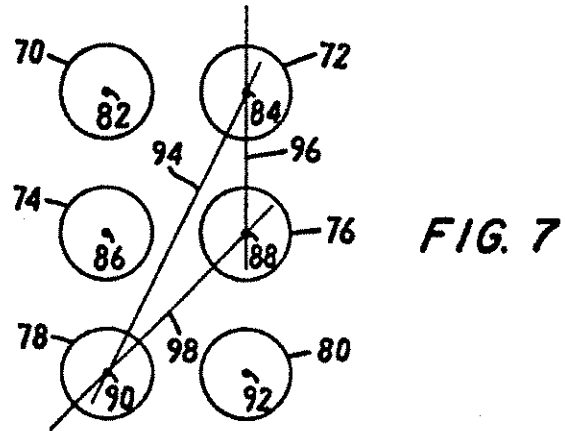
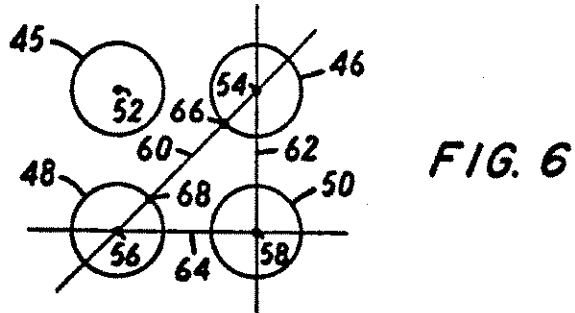
FIG. 5

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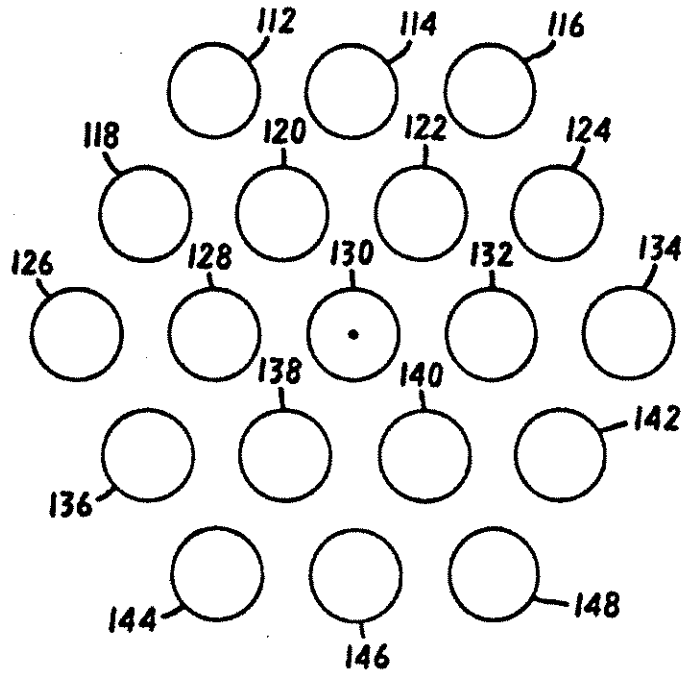


FIG. 9

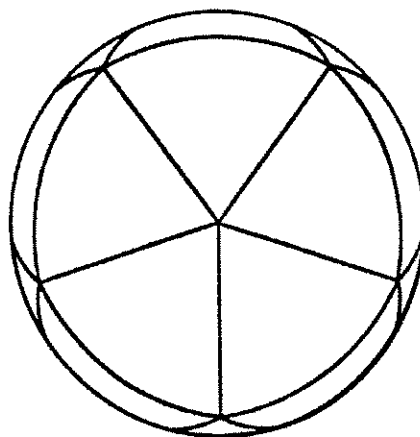


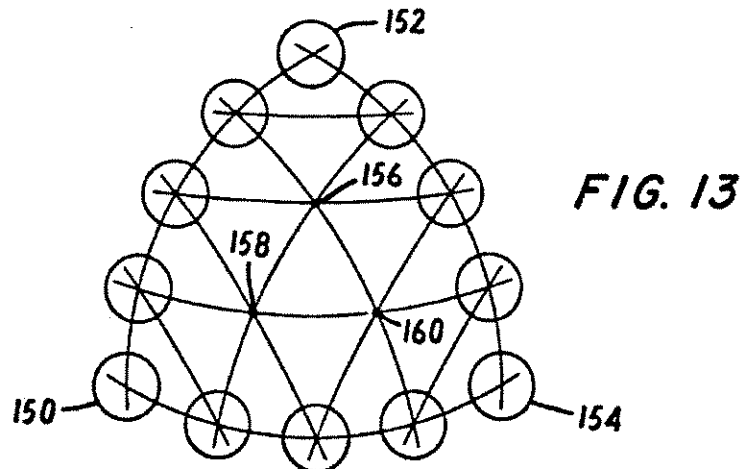
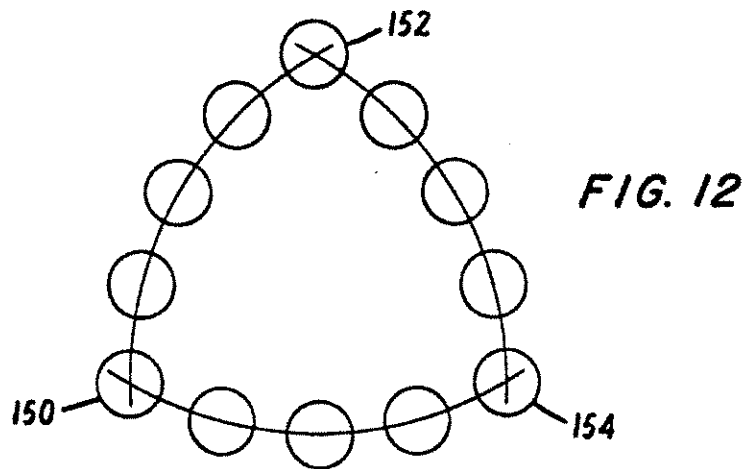
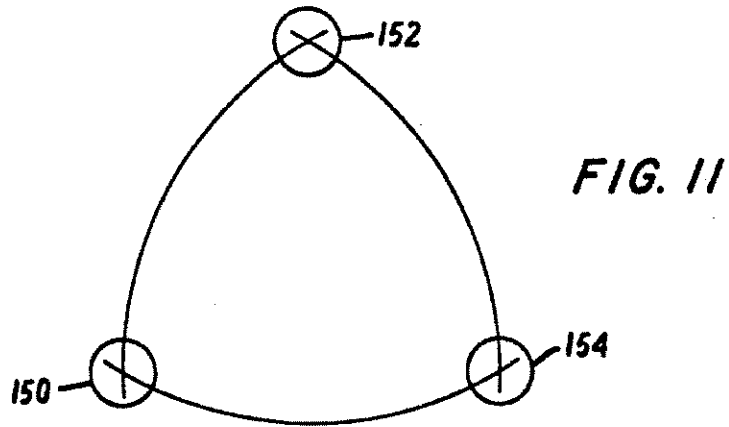
FIG. 10

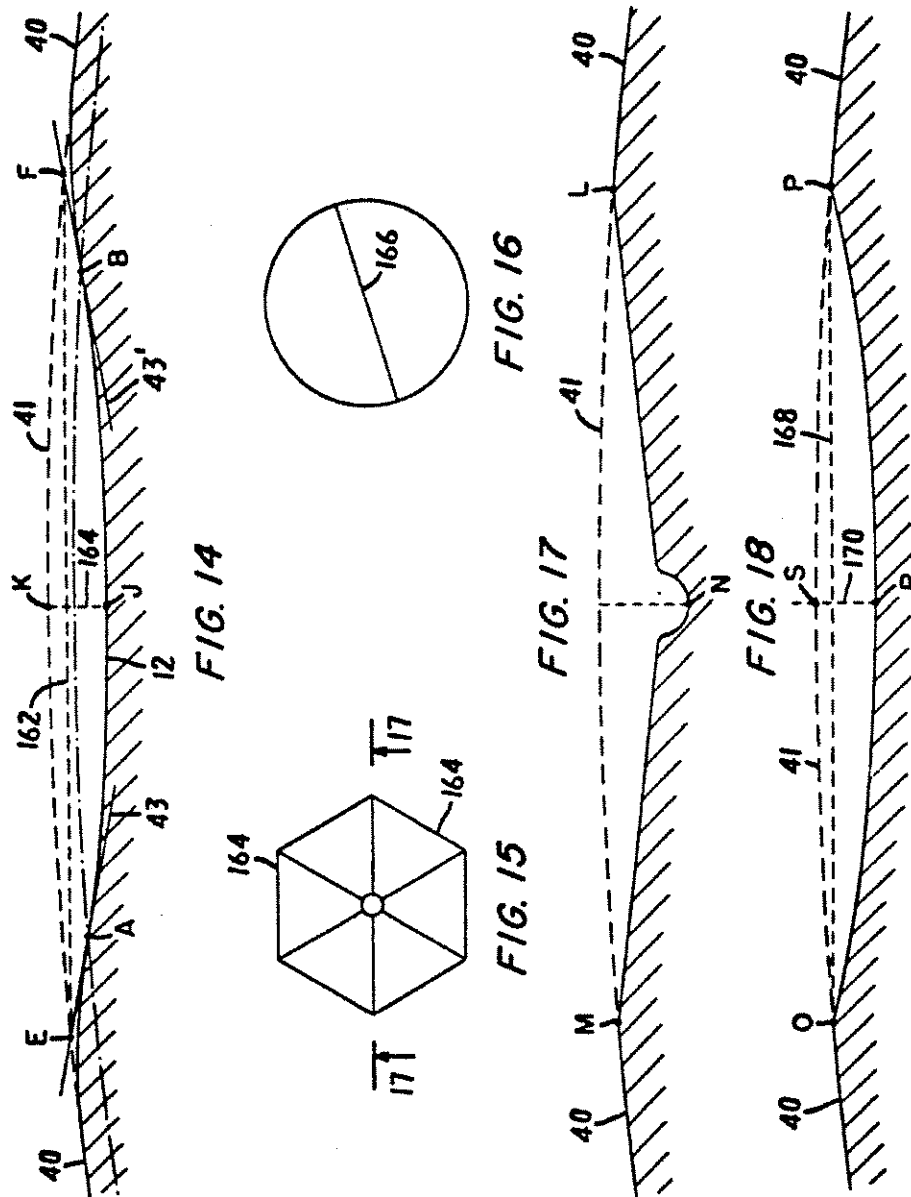
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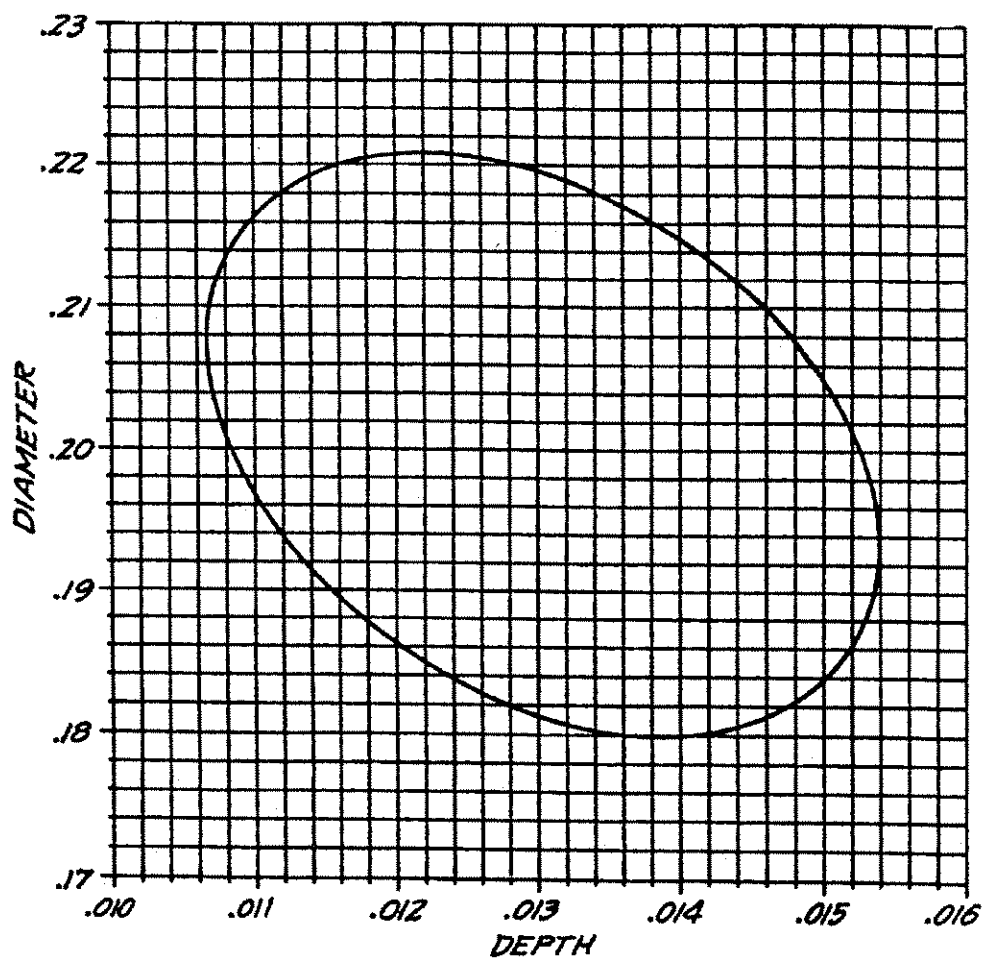
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FIG. 19.

182 DIMPLES (FORMULA 1)



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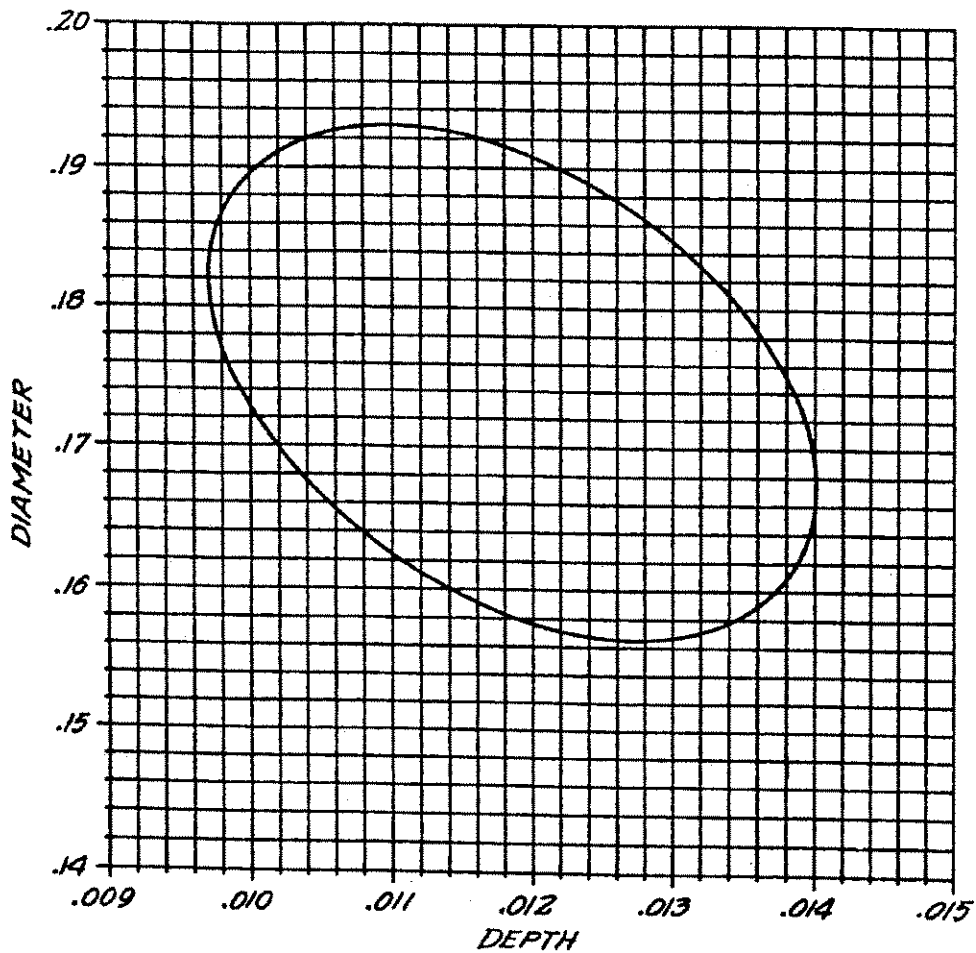
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FIG. 20.

252 DIMPLES (FORMULA 1)



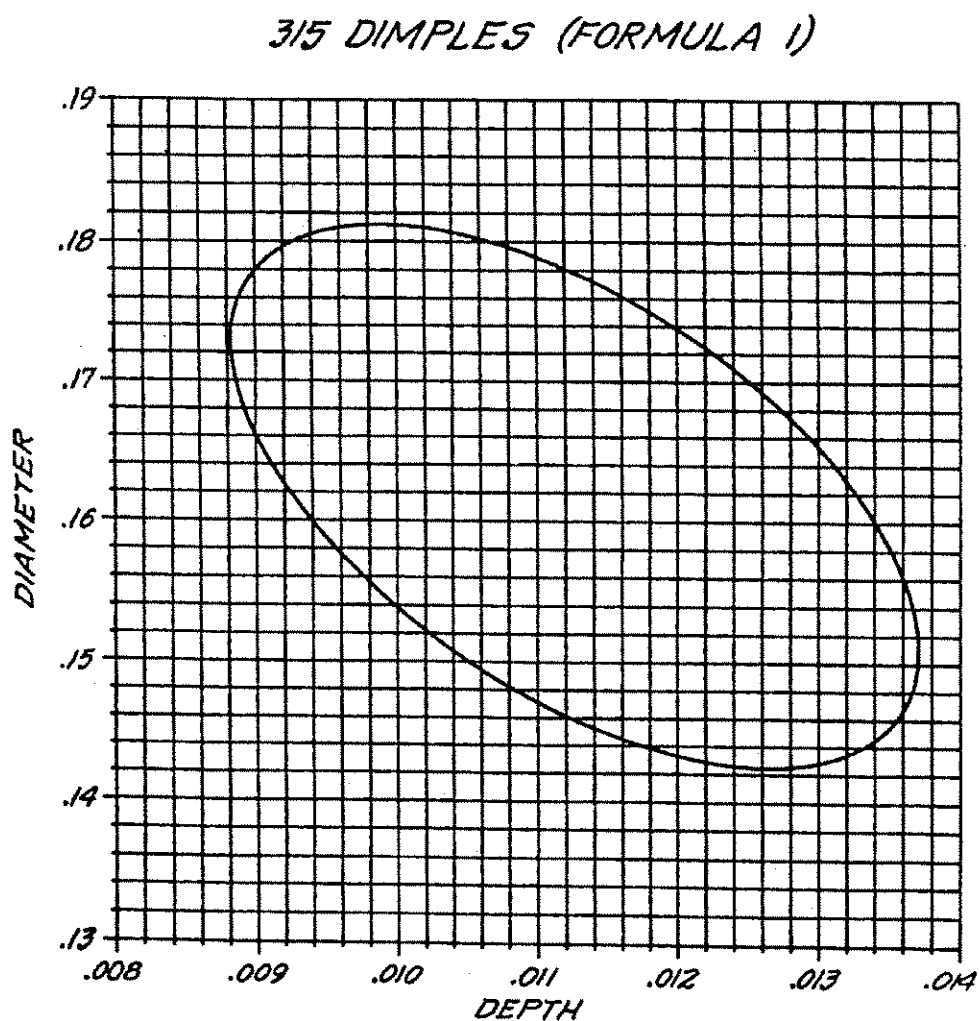
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FIG. 21.



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FIG. 22.

332 DIMPLES (FORMULA 1)

